



Substitute for form 1449A/PTO				Complete if Known	
				Application Number	10/562,374
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Filing Date	March 9, 2007
				First Named Inventor	Harley et al.
				Group Art Unit	1623
				Confirmation No.	7952
				Examiner Name	To be Assigned
Sheet	1	of	5	Attorney Docket Number	38797-8004.US00

38797-8004 US00
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U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
		Number	Kind Code (if known)			
	1.	US-5,770,578		Binder et al.	06-23-1998	
	2.	US-5,942,233		Chang	08-24-1999	
	3.	US-6,007,989		West et al.	12-28-1999	
	4.	US-6,126,942		Yang	10-03-2000	
	5.	US-6,190,678		Hasenoehtl et al.	02-20-2001	
	6.	US-6,277,396		Dente	08-21-2001	
	7.	US-6,346,539		Raman et al.	02-12-2002	

FOREIGN PATENT DOCUMENTS								
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		Office ³	Number	Kind Code ² (if known)				
	8.	PCT	WO 99/35243	A3	Cold Spring Harbor Laboratory	07-15-1999		
	9.	PCT	WO 00/08135	A1	Geron Corporation	02-17-2000		
	10.	PCT	WO 00/31238	A2	Genetica Inc.	06-02-2000		
	11.	PCT	WO 01/01996	A1	University of Western Australia	01-11-2001		
	12.	PCT	WO 02/91999	A2	Geron Corporation	11-21-2002		

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	13.	Bedir, E. et al., "Immunostimulatory effects of cycloartane-type triterpene glycosides from Astragalus species", <i>Biol. Pharm. Bull.</i> , <u>23</u> (7):834-837 (2000).			
	14.	Bodnar, A. G. et al., "Extension of life-span by introduction of telomerase into normal human cells" <i>Science</i> , <u>279</u> (5349):349-52 (1998).			
	15.	Calzada, L. et al., "Effect of tetracyclic triterpenes (argentatins A, B and D) on the estradiol receptor of hormone-dependent tumors of human breast", <i>Medical Science Research</i> , <u>23</u> (12):815-16 (1995).			

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	16.	Chiu, C. P. et al., "Replicative senescence and cell immortality: the role of telomeres and telomerase", <i>Proc. Soc. Exp. Biol. Med.</i> , <u>214</u> (2):99-106 (Feb 1997).	
	17.	Dagarag, M. et al., "Differential impairment of lytic and cytokine functions in senescent human immunodeficiency virus type 1-specific cytotoxic T lymphocytes", <i>Journal of Virology</i> , <u>77</u> (5):3077-83 (2003).	
	18.	Farwell, D. G. et al., "Genetic and epigenetic changes in human epithelial cells immortalized by telomerase", <i>American Journal of Pathology</i> , <u>156</u> (5):1537-47 (2000).	
	19.	Fujimoto, R. et al., "Expression of telomerase components in oral keratinocytes and squamous cell carcinomas", <i>Oral Oncology</i> , <u>37</u> (2):132-40 (2001).	
	20.	Funk, Walter D. et al., "Telomerase expression restores dermal integrity to in vitro- aged fibroblasts in a reconstituted skin model", <i>Experimental Cell Research</i> , <u>258</u> (2):270-278 (2000).	
	21.	Harle-Bachor, C. et al., "Telomerase activity in the regenerative basal layer of the epidermis in human skin and in immortal and carcinoma-derived skin keratinocytes", <i>Proc. Natl. Acad. Sci. USA</i> , <u>93</u> (13):6476-81 (1996).	
	22.	Harley, C. B. et al., "Telomeres shorten during ageing of human fibroblasts", <i>Nature</i> , <u>345</u> (6274):458-60 (1990).	
	23.	Henderson, S. et al., "In situ analysis of changes in telomere size during replicative aging and cell transformation", <i>Journal of Cell Biology</i> , <u>134</u> (1):1-12 (1996).	
	24.	Huang, Y. et al., "Selected non-timber forest products with medicinal applications from Jilin Province in China", Conference Title: Forest communities in the third millennium: Linking research, business, and policy toward a sustainable non-timber forest product sector; Kenora, Ontario, Canada, 1-4 October, 1999; General Technical Report- North Central Research Station, USDA Forest Service (No. NC-217): p. 93-101 (2000).	

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	25.	International Search Report for PCT application PCT/US2004/0202777 search report dated March 21, 2005, 2 pages (2005).	
	26.	Kaneko, M. et al., "Accelerated recovery from cyclophosphamide-induced leukopenia in mice administered a Japanese ethical herbal drug, <i>Hochu-ekki-to</i> ", <i>Immunopharmacology</i> , 44(3):223-231 (1999).	
	27.	Kang, M. K. et al., "Replicative senescence of normal human oral keratinocytes is associated with the loss of telomerase activity without shortening of telomeres", <i>Cell Growth & Differentiation</i> , 9(1):85-95 (1998).	
	28.	Khushbaktova, Z. A. et al., "Influence of cycloartanes from plants of the genus <i>Astragalus</i> and their synthetic analogs on the contractive function of the rnyocarbium and the activity of Na, K-ATPase", <i>Chemistry of Natural Compounds</i> , 30(4):469-473 (1994).	
	29.	Kitagawa et al., "Saponin and Sapogenol XXXIV. Chemical Constituents of <i>Astragali Radix</i> , the Root of <i>Astragalus Membranaceus</i> Bunge (1). Cycloastragenol, the 9,19-Cyclolanostane-type Aglycone of Astragalosides, and the Artifact Aglycone Astragenol, <i>Chem. Pharm. Bull.</i> , 31(2):689-697 (1983).	
	30.	Kitagawa et al., "Saponin and Sapogenol XXXV. Chemical Constituents of <i>Astragali Radix</i> , the Root of <i>Astragalus Membranaceus</i> Bunge (2). Astragalosides I, II and IV, Acetylastragaloside I and Isoastragalosides I and II, <i>Chem. Pharm. Bull.</i> , 31(2):698-708 (1983).	
	31.	Kinjo, J. et al., "Anti-herpes virus activity of fabaceous triterpenoidal saponins", <i>Biological & Pharmaceutical Bulletin</i> 23(7):887-9 (2000).	
	32.	Lee, K. M. et al., "Immortalization with telomerase of the Nestin-positive cells of the human pancreas", <i>Biochem Biophys Res Commun</i> , 301(4):1038-44 (2003).	
	33.	Mattson, M. P., "Emerging neuroprotective strategies for Alzheimer's disease: dietary restriction, telomerase activation, and stem cell therapy", <i>Experimental Gerontology</i> , 35(4):489-502 (2000).	

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	34.	Morales, C. P. et al., "Absence of cancer-associated changes in human fibroblasts immortalized with telomerase", <i>Nature Genetics</i> , <u>21</u> (1):115-8 (1999).	
	35.	Oda, K. et al., "Adjuvant and haemolytic activities of 47 saponins derived from medicinal and food plants", <i>Biological Chemistry</i> , <u>381</u> (1):67-74 (2000).	
	36.	Oh, H. and Schneider, M. D. , "The emerging role of telomerase in cardiac muscle cell growth and survival", <i>Journal of Molecular Cellular Cardiology</i> , <u>34</u> (7):717-24 (2002).	
	37.	Pistelli, L., et al., "Antimicrobial and antifungal activity of crude extracts and isolated saponins from <i>Astragalus verrucosus</i> ", <i>Fitoterapia</i> , <u>73</u> (4):336-339 (2002).	
	38.	Simonsen, J. L. et al., "Telomerase expression extends the proliferative life-span and maintains the osteogenic potential of human bone marrow stromal cells", <i>Nature Biotechnology</i> , <u>20</u> (6):592-6 (2002).	
	39.	Thomas, M. , Yang, L. , and Hornsby, P. J., "Formation of functional tissue from transplanted adrenocortical cells expressing telomerase reverse transcriptase", <i>Nature Biotechnology</i> , <u>18</u> (1):39-42 (2000).	
	40.	Vasa, M. et al., "Nitric oxide activates telomerase and delays endothelial cell senescence", <i>Circulation Research</i> , <u>87</u> (7):540-542 (2000).	
	41.	Wang, Y-P. et al., "Effect of astragaloside IV on T, B lymphocyte proliferation and peritoneal macrophage function in mice", <i>Acta Pharmacologica Sinica</i> , <u>23</u> (3): 263-6 (2002).	
	42.	Yang, J. et al., "Telomerized human microvasculature is functional in vivo", <i>Nature Biotechnology</i> , <u>19</u> (3):219-24 (2001).	
	43.	Yang, J., et al., "Human endothelial cell life extension by telomerase expression", <i>The Journal of Biological Chemistry</i> , <u>274</u> (37):26141-26148 (1999).	

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	44.	Yasukawa, K. et al., "Sterol and triterpene derivatives from plants inhibit the effects of a tumor promoter, and sitosterol and betulinic acid inhibit tumor formation in mouse skin two-stage carcinogenesis", <i>Oncology</i> , <u>48</u> (1):72-6 (1991).	
	45.	Yudoh, K. et al., "Reconstituting telomerase activity using the telomerase catalytic subunit prevents the telomere shorting and replicative senescence in human osteoblasts", <i>Journal of Bone and Mineral Research</i> , <u>16</u> (8):1453-1464 (2001).	
	46.	Zhang W. J. et al., "Regulation of the fibrinolytic potential of cultured human umbilical vein endothelial cells : astragaloside IV downregulates plasminogen activator inhibitor-1 and upregulates tissue-type plasminogen activator expression", <i>Journal of Vascular Research</i> , <u>34</u> (4):273-80 (1997).	
	47.	Zi-Pu, L. and Qian, C., "Effects of astragaloside IV on myocardial calcium transport and cardiac function in ischemic rats", <i>Acta Pharmacol Sin</i> <u>23</u> (10):898-904 (2002).	

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